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# ON SEXUAL DIMORPHISM IN XIPHOBATES CALLIPYGIS (ORIBATEI, CERATOZETOIDEA, CHAMOBATIDAE)

**Про статевий димофізм у Xiphobates callipygis (Oribatei, Ceratozetoidea, Chamobatidae). Павличенко П. Г.**— Описано другий випадок статевого диморфізму серед Ceratozetoidea. Самці *Xiphobates callipigys,* на відміну від самок, мають каудальний виріст на нотогастрі, де розташовані порові поля $A_3$, скульптуру покровів у вигляді поперечних зморшок між поровими полями $A_1$ та $A_2$, незвичайну, близьку до трикутної, форму порових полів $A_3$, які зімкнені одне з одним.

Ключові слова: Oribatei, Ceratozetoidea, морфологія, статевий диморфізм.

**О половом диморфизме у Xiphobates callipygis (Oribatei, Ceratozetoidea, Chamobatidae). Павличенко П. Г.**— Описан второй случай полового диморфизма среди Ceratozetoidea. Самцы *Xiphobates callipygis,* в отличие от самок, имеют каудальный вырост на нототастре, где расположены поровые поля $A_3$, скульптуру покровов в виде поперечных складок между поровыми полями $A_1$ и $A_2$, необычную, близкую к треугольной, форму поровых полей $A_3$, которые сомкнуты друг с другом.

Ключевые слова: Oribatei, Ceratozetoidea, морфология, половой диморфизм.

Pronouncedly expressed sexual dimorphism is a rare phenomenon among oribatid mites. Only one example of such phenomenon among Ceratozetoidea — *Zachvatkinibates maritimus* Shaldybina, 1973 has been known up to the present (Behan-Pelletier, 1988). The second case — *Xiphobates calipygis* (Pavlitshenko, 1991) is being described in this paper. This species was described on the basis of males (holotype and paratype). Newly discovered female demonstrate a sexual dimorphism.

Material. Topotypes: ♂ and ♀, Ukraine, Crimea, Kara-Dagh, in oak litter, 18.08.1980 (Sergienko).

Measurements. Larger than holotype: male 330×220 мm, female 340×224 мm.

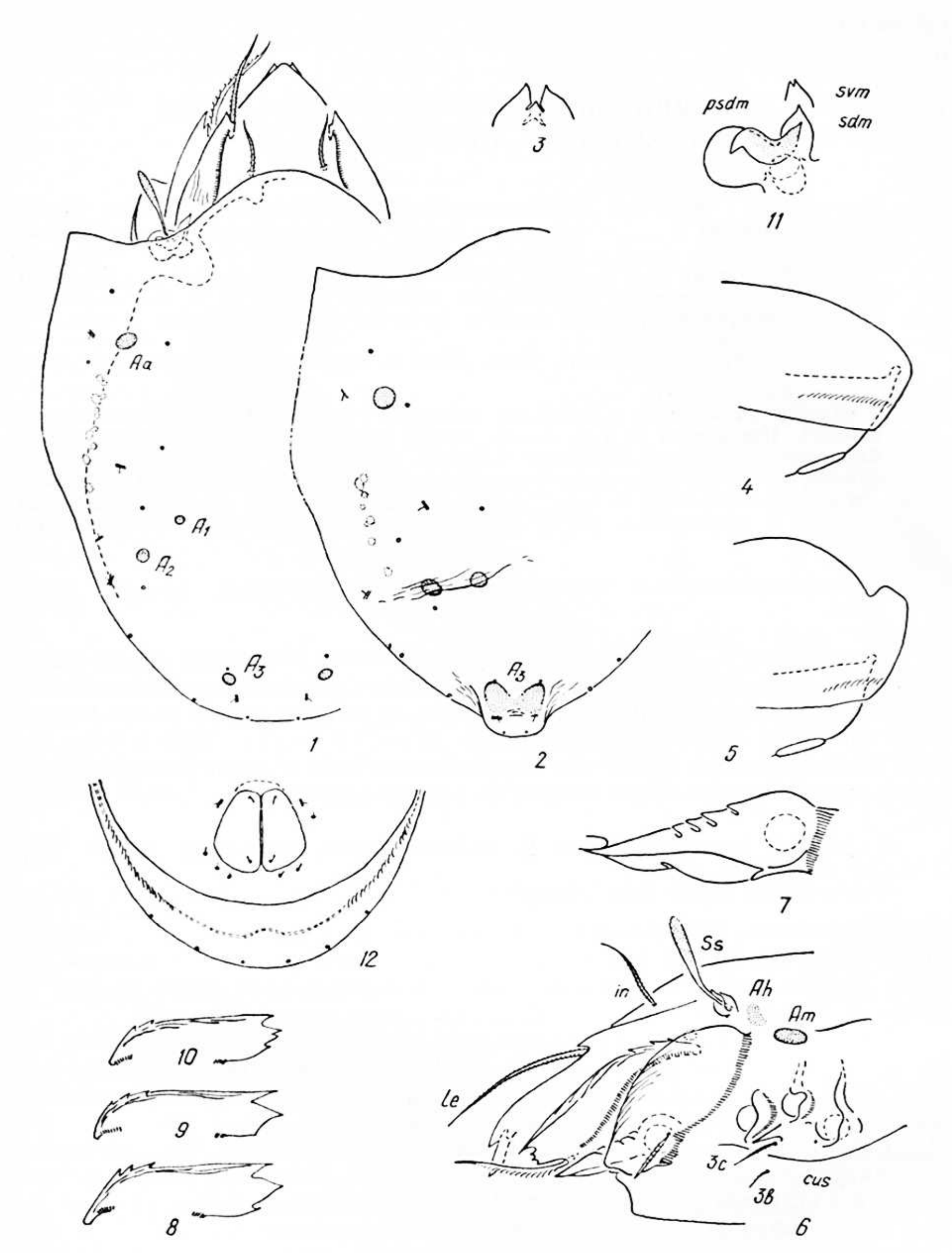
Integument. Microtuberculate over whole body, with short longitudinal striae on lateral parts, granular on medial part of coxisternal region. Female without transversal folds between porose areas $A_1$ and $A_2$ (Fig., *1*) in contrast with male (Fig., *2*).

Prodorsum. Shape and dimensions of all structures and setae are identical in both male and female. Shape of tip of rostrum clearly evident only when straightened (Fig., *3*). Bothridium scale sdm microtuberculate, svm with 1 or 2 short apical points (Fig., *11*).

Lateral aspect of podosoma. Genal incision shallow. The latero-dorsal margin of genal teeth with 2—4 notches (Fig., *7*). Tutorium with dentate distal margin. Number and shape of tutorial dentes situated below dorso-distal point are variable among specimen (Fig., *6, 8, 9, 10*). Tutorial dorsal ridge with 2 or 3 short spines (Fig., *6, 8, 9, 10*). Custodium short (13 мm), not reaching anteriorly to level of margin of Pd II (Fig., *6*).

Notogaster. Female with usual rounded shape of posterior part of the notogaster (Fig., *1, 4, 12*), and with usual position of porose areas $A_3$ (Fig., *1*). Male with caudal projection in posterior part of notogaster. Caudal projection with semitriangular porose areas $A_3$ medially connected (Fig., *2, 5*). Notogaster with 5 pairs of lurifissuri, 4 pairs of porose areas, 10 pairs of alveoli.

Ventral region. Shape, number, dimensions and situation of setae corresponds to holotype. Undivided posterior notogastral tectum present (Fig., *4, 5, 12*).




*Xiphobates callipygis: 1* — dorsal aspect; *2* — notogaster; *3* — tip of rostrum; *4, 5* — posterior part of notogaster (lateral aspect); *6* — lateral aspect of podosoma; *7* — genal tooth; *8, 9* — right tutorium; *10* — left tutorium; *11* — bothridium; *12* — posterior notogastral tectum and posterior part of ventral shield. *1, 4, 6, 8, 12* — female, *2, 3, 5, 9, 10* — male. *1, 2, 4—12* — topotypes; *3* — holotype.

*Xiphobates callipygis: 1* — дорсально; *2* — нотогастр; *3* — кончик рострума; *4, 5* — задняя часть ногогастра латерально; *6* — подосома латерально; *7* — генальный зуб; *8, 9* — правый туторий; *10* — левый туторий; *11* — ботридий; *12* — задний нотогастральный тектум и задняя часть вентрального щита. *1, 4, 6, 8, 12* — самка; *2, 3, 5, 9, 10* — самец. *1, 2, 4—12* — топотипы; *3* — голотип.

Legs. Setation (I—IV): trochanters 1—1—2—1; femora 5—5—2—2; genua 3(1)—3(1)—1(1)—2; tibiae 4(2)—4(1)—3(1)—3(1); tarsi 18(2)—

15(2)—15—12. Femur II with thin ventral carina. Femora II and III ventrally with longitudinal striae.

Discussion. In *Z. maritimus* sexual dimorphism is shown in the notogastral porose areas. In contrast with that case, sexual dimorphism of *X. callipygis* is displayed in: 1) shape of body (males have a caudate notogaster with porose areas $A_3$ on the cauda), 2) transversal folds on integument between porose areas $A_1$ and $A_2$ in males, 3) unusual semi-triangular shape of joint porose areas $A_3$ in males. Characteristic features 1) and 2) are unique in Ceratozetoidea.

*Павличенко П. Г.* Новые виды орибатидных клещей (Oribatei, Ceratozetoidea) с Украины // Вестн. зоологии.—1991.— № 6.— С. 19—25.
*Behan-Pelletier V. M.* Redefinition of Zachvatkinibates (Acari : Mycobatidae), with description of a new species and immatures of Z. maritimus Shaldybina 1973 // Can. Entomol.— 1988.— **120**.— P. 797—813.

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## ДЕКЛАРАЦИЯ ПО ВОДНО-БОЛОТНЫМ УГОДЬЯМ ЧЕРНОГО МОРЯ

BLACK SEA WETLANDS DECLARATION. From 18 to 22 October 1993, 55 wetland experts from 6 Black Sea coastal countries, 12 wetland experts from further 9 countries and 11 representatives of international organizations met in the Scientific Centre for Sea Ecology in Odessa, Ukraine. The workshop has been organized by the Ministry of Environment Protection of Ukraine, the International Waterfowl and Wetland Research Bureau (IWRB) and the Ukrainian Ornitological Society. Financial assistance has been provided by the Ministry of Agriculture, Nature Management and Fisheries of the Netherlands.

The participants agreed unanimously:

(A) That the extensive and ecologically important wetlands of the Black Sea basin provide valuable goods and services to the local people. These include flood control, retention of pollutants and sediments, support of commercial fishery, recreation potential and provision of important habitat for wildlife, including numerous endangered species.

(B) Despite this contribution to human health and welfare and to global biodiversity, there has been a massive loss and degradation of these ecosystems throughout the Black Sea basin which has hjad disastrous economic, social and ecological consequences. All this is critical during the current transition period, deep economic crisis and personal hardships the peoples are exposed in some countries of the Black Sea basin.